

IN THE CLAIMS:

1. (Currently Amended) An apparatus, comprising:
a scoreboard comprising a plurality of locations adapted to store transaction identifiers each associated with a transaction, wherein a each transaction comprises a first client sending a request to a second client, and wherein each transaction identifier includes a first timer flag and a second timer flag; and
a device adapted to manage the plurality of transaction identifiers in the scoreboard.
2. (Original) The apparatus of claim 1, wherein the device comprises a timer adapted to approximately synchronously compare the length of time the transaction identifiers remain in the scoreboard to a predetermined latency period.
3. (Original) The apparatus of claim 2, wherein the timer is a free-running timer.
4. (Original) The apparatus of claim 3, wherein the free-running timer is a cyclical free-running timer adapted to return to a zero-point after the predetermined latency period.
5. (Original) The apparatus of claim 4, wherein the predetermined latency period ranges approximately from 6 nanoseconds to 28 seconds.
6. (Original) The apparatus of claim 2, wherein the device further comprises a fill-code generator adapted to initiate a time-out sequence.
7. (Original) The apparatus of claim 6, wherein the fill-code generator is adapted to initiate the time-out sequence when the timer notifies the fill-code generator that at least one of the transaction identifiers has remained in the scoreboard longer than the predetermined latency period.

8. (Original) The apparatus of claim 7, wherein the fill-code generator is adapted to create a fill code and transmit the fill code to the first client when notified that at least one of the transaction identifiers has remained in the scoreboard longer than the predetermined latency period.
9. (Original) The apparatus of claim 8, wherein the fill-code generator is further adapted to notify the client that a time-out occurred.
10. (Currently Amended) The apparatus of claim 1, wherein the transaction identifiers ~~comprise~~ further include a client ID[,], and a client tag, ~~and a first and a second timer flag.~~
11. (Original) The apparatus of claim 1, wherein the first client is at least one of a processor, a memory, and an I/O device.
12. (Original) The apparatus of claim 1, wherein the second client is at least one of a processor, a memory, and an I/O device.
13. (Currently Amended) An apparatus, comprising:
 - a scoreboard comprising a plurality of locations adapted to store transaction identifiers each associated with a transaction, wherein a each transaction comprises a first client sending a request to a second client, and wherein each transaction identifier includes a first timer flag and a second timer flag;
 - a timer adapted to compare the length of time the transaction identifiers remain in the scoreboard to a predetermined latency period; and
 - a fill-code generator adapted to initiate a time-out sequence when notified that at least one transaction identifier has remained in the scoreboard for substantially longer than the predetermined latency period.

14. (Original) The apparatus of claim 13, wherein the timer is a free-running timer.
15. (Original) The apparatus of claim 14, wherein the free-running timer is a cyclical timer adapted to return to a zero-point after the predetermined latency period.
16. (Original) The apparatus of claim 15, wherein the predetermined latency period ranges approximately from 6 nanoseconds to 28 seconds.
17. (Original) The apparatus of claim 13, wherein the fill-code generator is adapted to create a fill code and transmit the fill code to the first client when notified by the free running timer that at least one of the transaction identifiers has remained in the scoreboard longer than the predetermined latency period.
18. (Original) The apparatus of claim 17, wherein the fill-code generator is further adapted to notify the client that a time-out occurred.
19. (Currently Amended) A method, comprising:
storing at least one transaction identifier in at least one of a plurality of locations in a scoreboard, wherein the at least one transaction identifier is associated with a transaction, wherein each transaction comprises a first client sending a request to a second client in a system, and wherein each transaction identifier includes a first timer flag and a second timer flag;
timing a selected duration; and initiating a time-out sequence if the selected duration is substantially longer than a predetermined latency period.
20. (Original) The method of claim 19, wherein timing the selected duration comprises comparing a period of a free running timer to approximately the length of time a transaction identifier remains in the scoreboard.

21. (Currently Amended) The method of claim 20, wherein comparing comprises detecting transaction identifiers that have been stored in the scoreboard ~~substantially~~ during ~~the~~ a previous period of the free-running timer.
22. (Currently Amended) The method of claim 21, wherein detecting transaction identifiers that have been stored in the scoreboard ~~substantially~~ during a previous period of the free-running timer comprises examining a the first timer flag when the free-running timer reaches a zero point.
23. (Currently Amended) The method of claim 22, wherein detecting transaction identifiers that have been stored in the scoreboard ~~substantially~~ during a previous period of the free-running timer further comprises setting the first timer flag when the first timer flag has not been set and setting a the second timer flag when the first timer flag has been set.
24. (Original) The method of claim 23, wherein comparing further comprises determining when a transaction identifier has been stored in the scoreboard for substantially longer than one cycle of the free-running timer.
25. (Original) The method of claim 24, wherein determining when a transaction identifier has been stored in the scoreboard for substantially longer than one cycle of the free-running timer comprises determining if the second timer flag has been set when the free-running timer reaches the zero point.
26. (Original) The method of claim 19, wherein timing the selected duration comprises comparing a period of a free running timer to approximately the length of time since the first client sent the request.
27. (Original) The method of claim 19, wherein initiating a time-out sequence comprises notifying a fill-code generator that the transaction identifier in at least

one location has remained in the scoreboard for substantially more than one period of the free-running timer.

28. (Original) The method of claim 27, wherein initiating a time-out sequence further comprises generating a fill code.
29. (Original) The method of claim 28, wherein initiating a time-out sequence further comprises transmitting the fill code to the first client.
30. (Original) The method of claim 29, wherein initiating a time-out sequence further comprises notifying the first client that a time-out has occurred.
31. (Currently Amended) A method, comprising:
 - storing at least one transaction identifier in at least one of a plurality of locations in a scoreboard, wherein the at least one transaction identifier is associated with a transaction, wherein each transaction comprises a first client requesting data from a second client in a system, and wherein each transaction identifier includes a first timer flag and a second timer flag;
 - detecting approximately synchronously transaction identifiers that have been stored in the scoreboard ~~substantially~~ during the previous period of a free-running timer having a period approximately equal to a predetermined latency period;
 - determining approximately synchronously when at least one of the transaction identifiers has been stored in the scoreboard for substantially longer than one cycle of the free-running timer;
 - and initiating approximately synchronously a time-out sequence if the transaction identifier remains in the scoreboard substantially longer than ~~the~~ a predetermined latency period.
32. (Currently Amended) The method of claim 31, wherein detecting transaction identifiers that have been stored in the scoreboard ~~substantially~~ during a previous

period of the free-running timer comprises examining a the first timer flag when the free-running timer reaches a zero point.

33. (Currently Amended) The method of claim 32, wherein detecting transaction identifiers that have been stored in the scoreboard ~~substantially~~ during a previous period of the free-running timer further comprises setting the first timer flag when the first timer flag has not been set and setting a the second timer flag when the first timer flag has been set.
34. (Original) The method of claim 31, wherein determining when a transaction identifier has been stored in the scoreboard for substantially longer than one cycle of the free-running timer comprises determining if the second timer flag has been set when the free-running timer reaches the zero point.
35. (Original) The method of claim 31, wherein initiating a time-out sequence comprises notifying a fill-code generator that the transaction identifier in at least one location has remained in the scoreboard for substantially more than one period of the free-running timer.
36. (Original) The method of claim 35, wherein initiating a time-out sequence further comprises generating a fill code and transmitting the fill code to the first client.
37. (Original) The method of claim 36, wherein initiating a time-out further comprises notifying the first client that a time-out has occurred.
38. (New) The apparatus as recited in claim 3, wherein the free-running timer is configured to examine the first timer flag when the free-running timer reaches a zero point.

39. (New) The apparatus as recited in claim 38, wherein the free-running timer is configured to set the first timer flag when the first timer flag has not been set and set the second timer flag when the first timer flag has been set.
40. (New) The apparatus as recited in claim 39, wherein the free-running timer is configured to determine when a transaction identifier has been stored in the scoreboard for substantially longer than one cycle of the free-running timer by examining the second timer flag.
41. (New) The apparatus as recited in claim 14, wherein the free-running timer is configured to examine the first timer flag when the free-running timer reaches a zero point.
42. (New) The apparatus as recited in claim 41, wherein the free-running timer is configured to set the first timer flag when the first timer flag has not been set and set the second timer flag when the first timer flag has been set.
43. (New) The apparatus as recited in claim 42, wherein the free-running timer is configured to determine when a transaction identifier has been stored in the scoreboard for substantially longer than one cycle of the free-running timer by examining the second timer flag.